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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,426	06/04/2001	Brett J. Muir	5181-76500	5677

7590 06/02/2004

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EXAMINER
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NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

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DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/874,426

Applicant(s)

MUIR, BRETT J.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This application has been examined. The claims 1-19 are pending. The examination results are as following.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,3, 6 and 8-10, 12, 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai (US 6,323,841) in view of Wolden (US 5,599,280)

Regarding claim 1, Lai discloses in figures 1A-1B, a computer mouse with massaging function (see abstract). However, Lai does not disclose a heating element configured to generate heat, wherein the input device is configured to transfer heat from the heating element to the hand or wrist of a user of the input device. Wolden discloses in figures 6-7, a heating element (22, figure 5) configured to generate heat, wherein the input device is configured to transfer heat from the heating element (22) to the hand or wrist of a user of the input device (19) (see user place his wrist on the surface, such as tying on a computer input device, an electrical cord 21 provides electrical power to operate internal heating elements, see column 2, lines 15-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the input device having a heating element configured to generate heat, wherein the input

device is configured to transfer heat from the heating element to the hand or wrist of a user as taught by Wolden into the computer mouse of Lai because this would for reducing stress and increasing the comfort of the user (see Wolden column 2, lines 56-64).

Regarding claim 3, Lai does not disclose the device comprising a microcontroller coupled to the heating element wherein the microcontroller is configured to control the amount of heat produced by the heating element. Wolden discloses in figure 4, the device comprising a microcontroller (20) coupled to the heating element (22), wherein the microcontroller is configured to control the amount of heat produced by the heating element (see column 2, lines 40-44).

Regarding claim 6, Lai teaches the input device (mouse) is coupled to a computer system, and power supply (see column 3, lines 56-63). However, Lai does not teach wherein power to the heating element is supplied by the computer. Wolden discloses wherein the power to the heating element is supplied by the computer input device (see column 2, lines 40-44).

Regarding claims 8-9, Lai does not teach the device comprising a plurality of heating elements and the heating elements are distributed and the heating is centralized. Wolden discloses the device comprising a plurality of heating elements (22) and the heating elements are distributed and the heating is centralized (see figure 5).

From claims 3, 6, and 8-9, it would have been obvious to one It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the input device comprising a microcontroller coupled to the heating element, the device comprising a plurality of heating elements and the heating elements are distributed and the heating is centralized as taught by Wolden into the system having mouse of Lai because this would for reducing stress and increasing the comfort of the user (see Wolden column 2, lines 56-64).

Regarding claim 10, Lai disclose in figure 4, a computer mouse comprising a vibration element (25, or 212) configured to generate vibrations, wherein the input device (mouse) is configured to transfer vibrations from the vibrating element (212). However, Lai does not disclose mouse is configured to transfer vibrations from the vibrating element to the hand or wrist of a user of the input device (19). Wolden discloses in figures 1-3, vibrations from the vibrating element (15) to the hand or wrist of a user of the input device (19) (see user place his wrist on the surface, such as tying on a computer input device, it will provide the vibrating element, see column 2, lines 15-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the vibrations from the vibrating element transfer to the hand or wrist of a user as taught by Wolden into the computer system having a mouse

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of Lai because this would for reducing stress and increasing the comfort of the user, (see Wolden column 2, lines 56-64).

Regarding claim 12, Lai disclose the device comprising a microcontroller (see circuit of dry cell 25) coupled to the vibrating (212), wherein the microcontroller is configured to control the amount of vibration produced by the vibrating element (see column 3, lines 22-29).

Regarding claim 15 Lai discloses wherein the input device is coupled to a computer system, and wherein power to the vibrating element is supplied by the computer (see column 3, lines 22-29, and figure 5, column 3, lines 29-63).

Regarding claims 17-18, Lai does not disclose the device comprising a plurality of vibrating elements and the heating elements are distributed, and wherein the vibrating element is centralized. Wolden discloses the device comprising a plurality of vibrating elements (15) and the heating elements (22) are distributed, and wherein the vibrating element is centralized (see figures 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the a plurality of vibrating elements and the heating elements are distributed, and wherein the vibrating element is centralized as taught by Wolden into the system having mouse of Wolden because this would for reducing stress and increases the comfort of the user, see Wolden column 2, lines 56-64).

Regarding claims 19, Lai and Wolden disclose a computer mouse comprising a heating element configured to generate heat, wherein the input device is configured to transfer heat from the heating element to the hand or wrist of a user of the input device during; and a vibrating element configured to generate vibrations, wherein the input device is configured to transfer vibrations from the vibrating element to a user of the input device during as discusses above.

3. Claims 2, 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lai (US 6,323,841) and Wolden (US 5,599,280) in view of Tu et al. (US patent 6,206,842).

Lai and Wolden discloses computer mouse comprising a heating element configured to generate heat, wherein the input device is configured to transfer heat from the heating element to a user of the input device as discusses above. However, Lai and Wolden do not disclose a temperature sensor coupled to the heating element. Tu et al. disclose a medical device having an addition vibrational massage therapy for the tissues comprising a temperature sensor (32, see figure 4) to measure the rises or drops point of the temperature to activate the ultrasonic energy supply (see column 5, lines 15-25). It would have bee obvious to one of ordinary skill in the art at the time the invention was made to implement the using of temperature sensor of medical device having vibrational massage therapy as taught by Tu et al. into the computer mouse having heating elements of Lai and Wolden because this would control a signal to cut off the ultrasonic energy supply or control a signal to activate the ultrasonic energy supply (see Tu et al., column 5, lines 21-

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26), and thereby generating thermal energy and microvibration in the tissue (see Tu et al., column 7, lines 23-27).

4. Claims 11, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai (US 6,323,841) and Wolden (US patent 5,599,280) in view of Moriyasu (US patent 5,857,986).

Lai and Wolden discloses a computer mouse comprising a vibrating element configured to generate vibrations, wherein the input device is configured to transfer vibrations from the vibrating element to a user of the input device as discusses above. However, Lai and Wolden do not disclose a vibration sensor coupled to the vibrating. Moriyasu discloses in figure 1 an interactive vibrator system provide stimulus to a computer user in response to interaction between computer and user with input device as mouse (3) having vibration sensor (see vibrator system senses these signals and generates a driving signal for vibrating device (22, see figure 1, column 3, lines 60-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of vibrator system senses these signals and generates a driving signal for vibrating device as taught by Moriyasu into the computer input device of having the vibrating elements of Lai and Wolden because this would drive the driving signal and the resulting vibration have variable amplitude and duration depending on the nature of the user actions (see Moriyasu, column 3, lines 65-67).



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5. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai (US 6,323,841) and Wolden (US patent 5,599,280) in view of Wright, Sr. (US patent 5,686,005 cited by Applicant).

Lai and Wolden disclose a computer input device comprising a heating element or vibrating element configured to generate heat or vibrations wherein the input device is configured to transfer heat or vibrations from the heating element or vibration element to a user of the input device as discusses above. However, Lai and Wolden do not disclose wherein the input device comprises an external control device to allow a user to alter the heating element or the vibrating element. Wright, Sr. discloses a conventional rheostat and/or thermostat controls (external control device, not shown) can be incorporated to the heat computer system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of rheostat and/or thermostat controls as taught by Wright, Sr. into the computer input device of Lai and Wolden having heating and vibrating elements because this would be incorrrporated within the electrical line to achieve and maintain the desired temperature range (see Wright, column 3, lines 64-67).

### ***Response To Arguments***

6. Applicant's arguments filed on 1-8-04 have been fully considered but they are not persuasive in view of new ground rejection.

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7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231

**Or faxed to:**


**(703) 872-9314 (for Technology Center 2600 only).**

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Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,  
Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone  
number is (703) 306-0377.

Kimnhung Nguyen  
May 28, 2004

  
RICHARD HJERPE 6/1/04  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600